

Amendments to the Specification:

Before the first line of the specification and following the Title, please insert:

"REFERENCE TO RELATED APPLICATIONS"

This application is a continuations of U.S. Application No. 09/479,240 filed January 7, 2000 which classify in a direction of U.S. Application No. 07/467,961 filed January 6, 1995 (new U.S. Patent No. 7,171,783) which itself is a division of U.S. Application No. 08/001,554 filed January 6, 2003 (now abandoned), which claims priority under 35 USC 119(e) from Great Britain Application No. 92 00117.1 filed January 6, 1992."

Please replace the paragraph beginning at page 4, line 11, with the following rewritten paragraph:

In its broadest aspect, the present invention provides a multimeric hybrid gene, comprising a gene sequence coding for an immunogen antigenic region of a protein from a first pathogen linked to a gene sequence coding for an immunogen antigenic region of a protein from a second pathogen and to a chimeric protein encoded by such multimeric hybrid gene. Such chimeric protein comprises an immunogen antigenic region of a protein from a first pathogen linked to an immunogen antigenic region of a protein from a second pathogen.

Page 4, line 20, delete the word "generally";

The first and second pathogens ~~generally~~ are selected from bacterial and viral pathogens and, in one embodiment, may both be viral pathogens. Preferably, the first and second pathogens are selected from those causing different respiratory tract diseases, which may be upper and lower respiratory tract diseases. In a preferred embodiment, the first pathogen is parainfluenza virus and the second pathogen is respiratory syncytial virus. The PIV protein particularly is selected from PIV-3 F and HN proteins and the RSV protein particularly is selected from RSV G and F proteins.. Another aspect of the invention provides cells containing the multimeric hybrid gene for expression of a chimeric protein encoded by the gene. Such cells may be bacterial

cells, mammalian cells, insect cells, yeast cells or fungal cells. Further, the present invention provides a live vector for antigen delivery containing the multimeric hybrid gene, which may be a viral vector or a bacterial vector, and a physiologically-acceptable carrier therefor. Such live vector may form the active component of a vaccine against diseases caused by multiple pathogenic infections. Such vaccine may be formulated to be administered in an injectable form, intranasally or orally.

Page 5, lines 11 and 13, change "antigenic" to "immunogenic" at each occurrence;

In an additional aspect of the present invention, there is provided a process for the preparation of a chimeric protein, which comprises isolating a gene sequence coding for an immunogen antigenic region of a protein from a first pathogen; isolating a gene sequence coding for an immunogen antigenic region of a protein from a second pathogen; linking the gene sequences to form a multimeric hybrid gene; and expressing the multimeric hybrid gene in a cellular expression system.

Page 5, line 16, insert "The first and second pathogens are selected from bacterial and viral pathogens." After "system."

cellular expression system. The first and second pathogens are selected from bacterial and viral pathogens.

On page 6, line 23, change "Figure 1" to read "Figures 1A to 1E";

Figures 1A to 1E ~~Figure 1~~ shows the nucleotide (SEQ ID No: 1) and amino acid (SEQ ID No: 2) sequence of a PCR-amplified PIV-3 F gene and F protein, respectively;

On page 6, line 23, change "Figure 3" to read "Figures 3A to 3E";

~~Figure 3~~ Figures 3A to 3E shows the nucleotide (SEQ ID No: 3) and amino acid (SEQ ID No: 4) sequences of the PIV-3 HN gene and HN protein, respectively;

On page 6, line 33, change "Figure 5" to read "Figures 5A to 5E";

On page 6, line 33, change "Figure 5" to read "Figures 5A to 5E";

~~Figure-5~~ Figures 5A to 5E shows the nucleotide (SEQ ID No: 5) and amino acid (SEQ ID No: 6) sequences of the RSV F gene and RSV F protein, respectively;

On page 7, line 8, change "Figure 9" to read "Figures 9A to 9D";

~~Figure-9~~ Figures 9A to 9D shows the steps involved in the construction of an expression vector containing a chimeric F_{PIV-3} - F_{RSV} gene;

Page 14, line 18, insert "SE ID NO:21" after "AGGACAAAAG".

clone had ten additional nucleotides (AGGACAAAAG) SE ID NO:21 at the

Page 15, line 13, change "1887" to "1886";

~~1887~~ 1886 nucleotide sequence from two RSV F clones verified

Page 19, line 31 and page 23, line 10, underline the terms "Spodoptera frugiperda" to signify that they should be printed in italicized form.

Spodoptera frugiperda (Sf9) cells were co-

On pages 24, lines 20 and 24, capitalize the term "TRITON X-100" and add "(Trademark for a non-ionic detergent which is octadienyl phenol (ethylene glycol)₁₀)" following the term in line 20;

HCl pH 7.5, 150 mM NaCl, 0.02% v/v TRITON-X 100 ~~Triton-X-100~~ "(Trademark for a non-ionic detergent which is octadienyl phenol (ethylene glycol)₁₀)" prior to use. After sample loading, the column was washed with 10 bed volumes of washing buffer followed by 3 bed volumes of high salt buffer (10mm Tris-HCl pH 7.5, 500mM NaCl, 0.02% v/v TRITON-X 100 ~~Triton-X-100~~ "(Trademark for a non-ionic detergent which is octadienyl phenol (ethylene glycol)₁₀)"). The chimeric F_{RSV} - HN_{PIV-3}

Page 26, line 32, change "homogenates" to "lavages".

Virus titers were determined in lung lavages homogenates. As

Add the Sequence Listing enclosed.